



**CENTRAL LABORATORY
MEGHALAYA STATE POLLUTION
CONTROL BOARD**

WATER QUALITY TEST REPORT



Cert. No. 15/15/17

Report No: WQ/2018/81

- | | | |
|-------------------------------------|---|--|
| 1. Issue Date | : | 12.3.2018 |
| 2. Name of the Project | : | Drinking water source (MCCL, Sohra) |
| 3. Sample matrix | : | Water |
| 4. Date of sample collection | : | 14.2.2018 |
| 5. Samples collected by | : | MSPCB, Shillong |
| 6. Date of sample receipt | : | 15.2.2018 |
| 7. Date of sample analysis | : | 15 th – 28 th Feb 2018 |
| 8. Sample Registration No. | : | G/68/18/1 |
| 9. Sample plan reference | : | - |
| 10. Report sent to (Name & Address) | : | - General Manager, MCCL Office, Shillong. |
| 11. Deviation, if any | : | - |
| 12. Method of sampling | : | IS-3025-Part I |
| 13. Remarks | : | - |

Parameters	Test method Method: APHA 21 st Ed. No.	Limits	Sample code/Sampling location
		Indian Standard for drinking water (IS : 10500-2012)	G/68/18/1 Tap water MCCL Canteen
pH	4500-H ⁺ B	6.5-8.5	3.8
Conductivity ($\mu\text{mho/cm}$)	2510 A	*	204.0
Turbidity (NTU)	2130 B	1.0	2.0
Chloride (mg/l)	4500-Cl ⁻ B	250.0	15.0
Total Alkalinity as CaCO ₃ (mg/l)	2320 B	200.0	2.0
Total Hardness as CaCO ₃ (mg/l)	2340 C	200.0	90.0
Nitrate-N (mg/l)	4500-NO ₃ ⁻ D	45.0	0.1
Iron (mg/l)	3500-Fe B	0.3	0.26
Total Coliform(MPN per 100ml)	9221 B	Shall not be detectable	4

*Not Prescribed

Statement:

- The results are reported based on the materials received
- Sample will be destroyed after one month from the date of issue of the report.
- The report shall not be reproduced except in full without the written approval of the laboratory

Scientist C

Sr. Scientist



**CENTRAL LABORATORY
MEGHALAYA STATE POLLUTION
CONTROL BOARD**

WATER QUALITY TEST REPORT



Certificate No. TL 1522

Report No: WQ/2018/82

- | | | |
|-------------------------------------|---|--|
| 1. Issue Date | : | 12.3.2018 |
| 2. Name of the Project | : | Water Quality (Streams near MCCI Sohra) |
| 3. Sample matrix | : | Water |
| 4. Date of sample collection | : | 14.2.2018 |
| 5. Samples collected by | : | MSPCB, Shillong |
| 6. Date of sample receipt | : | 15.2.2018 |
| 7. Date of sample analysis | : | 16 th – 28 th Feb 2018 |
| 8. Sample Registration No. | : | G/68/18/2-3 |
| 9. Sample plan reference | : | - |
| 10. Report sent to (Name & Address) | : | -General Manager, MCCL Office, Shillong. |
| 11. Deviation, if any | : | - |
| 12. Method of sampling | : | IS-3025-Part I |
| 13. Remarks | : | - |

Parameters	Test method Method: APHA 21 st Ed. No.	Sampling Code/Location	
		G/68/18/2 Ngam U Lah stream (Upstream)	G/68/18/3 Mawmluh stream
<i>pH</i>	4500-H ⁺ B	7.2	7.5
<i>Conductivity (µmho/cm)</i>	2510 A	95.0	175.0
<i>Turbidity (NTU)</i>	2130 B	1.5	2.5
<i>Total Suspended Solids (mg/l)</i>	2540D	5.0	6.0
<i>Total Dissolved Solids (mg/l)</i>	2540C	135.0	121.0
<i>Chloride (mg/l)</i>	4500-Cl ⁻ B	14.0	14.0
<i>Total Hardness (mg/l)</i>	2340 C	34.0	80.0
<i>Alkalinity (mg/l)</i>	2320 B	32.0	66.0
<i>Nitrate-N (mg/l)</i>	4500-NO ₃ D	0.12	0.14
<i>Nitrite-N (mg/l)</i>	4500NO ₂ -B	BDL*	BDL*
<i>Flouride</i>	4500-F-D	0.05	0.06
<i>Iron (mg/l)</i>	3500-Fe B	0.31	0.4
<i>Dissolved Oxygen (mg/l)</i>	4500-O C	7.8	7.9



**CENTRAL LABORATORY
MEGHALAYA STATE POLLUTION
CONTROL BOARD**

WATER QUALITY TEST REPORT



Certificate No. TE 5527

Report No: WQ/2018/83

- | | | |
|-------------------------------------|---|--|
| 1. Issue Date | : | 12.3.2018 |
| 2. Name of the Project | : | Effluent quality (MCCL, Sohra) |
| 3. Sample matrix | : | Water |
| 4. Date of sample collection | : | 14.2.2018 |
| 5. Samples collected by | : | MSPCB, Shillong |
| 6. Date of sample receipt | : | 15.2.2018 |
| 7. Date of sample analysis | : | 16 th – 28 th Feb 2018 |
| 8. Sample Registration No. | : | G/68/18/4 |
| 9. Sample plan reference | : | - |
| 10. Report sent to (Name & Address) | : | - General Manager, MCCL Office, Shillong. |
| 11. Deviation, if any | : | - |
| 12. Method of sampling | : | IS-3025-Part I |
| 13. Remarks | : | - |

Parameters	Test method Method: APHA 21 st Ed. No	Limit	Sampling Code/Sampling location
		General Standards for discharge of environmental pollutants into inland surface water as per EPA Notification vide GSR 801(E) EPA, 1986 Dated, December 31, 1993	G/68/18/4 ETP
<i>pH</i>	4500-H ⁺ B	5.5-9.0	7.3
<i>Total Suspended Solids (mg/l)</i>	2540 D	100.0	26.0
<i>Oil & Grease (mg/l)</i>	5520 B	10.0	BDL*
<i>Biochemical Oxygen Demand (mg/l)</i>	IS-3025 (P-44)	30.0	1.3

*Below Detectable limits

Statement:

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Scientist C

Sr. Scientist

Calcium as CaCO ₃ (mg/l)	3500-CaB	22.0	60.0
Magnesium as CaCO ₃ (mg/l)	3500-MgB	12.0	20.0
Potassium (mg/l)	3500-KB	3.0	3.2
Sodium (mg/l)	3500-NaB	7.6	7.8
Ammonia Nitrogen (mg/l)	4500-NH3A&C	0.15	0.13
Phosphates (mg/l)	4500-P D	0.01	0.04
Sulphates (mg/l)	4500-SO4-2E	23.0	14.7

Statement:

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3. The report shall not be reproduced except in full, without the written approval of the laboratory.

H. An
Scientist C

R. V. J.
Sr. Scientist



**CENTRAL LABORATORY
MEGHALAYA STATE POLLUTION CONTROL BOARD**



AMBIENT AIR QUALITY TEST REPORT

Certificate No: TC-5577

No. MPCB/CL-TRT/AIR/2015-16/016

Issue No. : 01

Issue Date :28.04.16

Report No. : AQ/2018/032

1.	Name of the Project	:	Ambient Air Quality monitoring at MCCL (Mines), Sohra.	
2.	Sample matrix	:	Ambient Air	
3.	Samples collected by	:	MN Warbah/S. Nongkynrih	
4.	Date of sample collection	:	13.02.18	
5.	Date & time of sample receipt	:	15.02.18	
6.	Date of sample analysis	:	15.02.18	
7.	Date of Issue	:	-	
8.	Sample Registration No.	:	A/32 /18	
9.	Test method reference	:	IS 5182 Pt. 23, IS 5182 Pt. 2, and IS 5182 Pt. 6.	
10.	Name & Address of Industry/Sampling Location	:	MCCL (Mines), Sohra.	
12.	Time duration of sampling	:	24 hrs (8 hrs interval for rspm , 4 hrs interval for gaseous)	
13.	Category	:	Residential	
14.	Meteorological Parameters			
	General Weather condition	:	Clear	
	Temperature (°C)	:	Min: 9.3	Max: 22.3
	Relative Humidity (%)	:	Min: 54.2	Max: 86.3
	Wind Speed (km/hr)	:	Min: 0.9	Max: 2.5 Avg: -
	Wind Direction (most prevailing)	:	NE-SW	
	Rainfall (mm)	:	Sum: Nil	

Parameters	Test Method	Permissible Limits (24 hours average) EPA Notification GSR 826(E), dated New Delhi, the 16 th Nov. 2009.	Sampling Station Code/Name
			A/32/18
			Near Canteen
Particulate Matter (PM 10) (µg/m ³) (24 hrs avg.)	IS:5182 (Pt-23)	100	78.1
Sulphur dioxide (µg/m ³) (24 hrs avg.)	IS:5182 (Pt-2)	80	2.0
Nitrogen dioxide (µg/m ³) (24 hrs avg.)	IS:5182 (Pt-6)	80	10.9

Remarks: Parameters tested were found to be within the prescribed limits of Ambient Air Quality Standards as per EPA Notification GSR 826(E), dated New Delhi, the 16th Nov. 2009.

1. Test values are reported based on the materials received.
2. Sample(s) will be destroyed after 15 days from date of issues of the Test Report.
3. The test report shall not be reproduced except in full, without the written approval of laboratory.

Scientist 'C'

Senior Scientist



**CENTRAL LABORATORY
MEGHALAYA STATE POLLUTION CONTROL BOARD**



AMBIENT AIR QUALITY TEST REPORT

Certificate No: TC-5577

No. MPCB/CL-TRT/AIR/2015-16/016

Issue No. : 01

Issue Date :28.04.16

Report No. : AQ/2018/034

1.	Name of the Project	:	Ambient Air Quality monitoring at MCCL (Mines), Sohra.	
2.	Sample matrix	:	Ambient Air	
3.	Samples collected by	:	MN Warbah/S. Nongkynrih	
4.	Date of sample collection	:	13.02.18	
5.	Date & time of sample receipt	:	15.02.18	
6.	Date of sample analysis	:	15.02.18	
7.	Date of Issue	:	-	
8.	Sample Registration No.	:	A/34/18	
9.	Test method reference	:	IS 5182 Pt. 23, IS 5182 Pt. 2, and IS 5182 Pt. 6.	
10.	Name & Address of Industry/Sampling Location	:	MCCL (Mines), Sohra.	
12.	Time duration of sampling	:	24 hrs (8 hrs interval for rspm , 4 hrs interval for gaseous)	
13.	Category	:	Residential	
14.	Meteorological Parameters			
	General Weather condition	:	Clear	
	Temperature (°C)	:	Min: 8.6	Max: 22.5
	Relative Humidity (%)	:	Min: 57.3	Max: 70.2
	Wind Speed (km/hr)	:	Min: 0.8	Max: 2.6 Avg: -
	Wind Direction (most prevailing)	:	NE-SW	
	Rainfall (mm)	:	Sum: Nil	

Parameters	Test Method	Permissible Limits (24 hours average) EPA Notification GSR 826(E), dated New Delhi, the 16 th Nov. 2009.	Sampling Station Code/Name
			A/34/18
			Quarry AL-3
Particulate Matter (PM 10) ($\mu\text{g}/\text{m}^3$) (24 hrs avg.)	IS:5182 (Pt-23)	100	88.1
Sulphur dioxide ($\mu\text{g}/\text{m}^3$) (24 hrs avg.)	IS:5182 (Pt-2)	80	2.0
Nitrogen dioxide ($\mu\text{g}/\text{m}^3$) (24 hrs avg.)	IS:5182 (Pt-6)	80	4.5


Remarks: Parameters tested were found to be within the prescribed limits of Ambient Air Quality Standards as per EPA Notification GSR 826(E), dated New Delhi, the 16th Nov. 2009.

1. Test values are reported based on the materials received.
2. Sample(s) will be destroyed after 15 days from date of issues of the Test Report.
3. The test report shall not be reproduced except in full, without the written approval of laboratory.

Scientist 'C'

Senior Scientist



CENTRAL LABORATORY MEGHALAYA STATE POLLUTION CONTROL BOARD		 Certificate No: TC-5577
NOISE LEVEL TESTING REPORT		
No. MPCB/CL-31/TRT/2015-16/016	Issue No. : 01	Issue Date :28.04.16

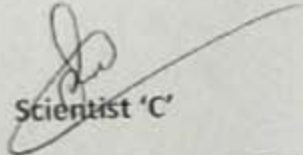
Report No.: NL/2018/033

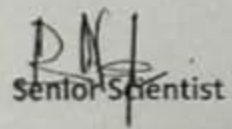
1.	Name of the Project	:	Noise Level Monitoring at MCCL (Mines), Sohra.
2.	Sample matrix	:	Noise level
3.	Monitored by	:	L. Shylla
4.	Date of monitoring	:	13.02.18
5.	Date of sample receipt	:	15.02.18
6.	Date of sample analysis	:	15.02.18
7.	Date of Issue	:	-
8.	Sample Registration No.	:	N/33/18
9.	Test method reference	:	IS-9989/981-RA 2001/MPCB/CL-SOP/2017-18/21
10.	Name & Address of Industry/Sampling Location	:	MCCL (Mines), Sohra.
11.	Category of Area	:	Industrial

Parameters	Limits in {dB(A)Leq}		Test method	Sampling Station Code/Name
	{Noise Pollution(Regulation and Control) Rules,2000.} Under EPA, 1986.			N/33/18
Ambient Noise Level {dB(A)Leq}	Day Time (6 AM to 10 PM)	75	IS-9989/981-RA 2001/MPCB/CL-SOP/2017-18/21	58.9
	Night Time (10 PM to 6 AM)	70		51.9
Observations	The Noise level recorded during blasting (2:30PM) was 126.4 dB.			

Remarks: Noise level monitored at the location was found to be within the prescribed limits as per the Noise Pollution(Regulation and Control) Rules,2000 under EPA, 1986.

1. Test values are reported based on the information provided to the laboratory.
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 Scientist 'C'


 Senior Scientist



**CENTRAL LABORATORY
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AMBIENT AIR QUALITY TEST REPORT

Certificate No: TC-5577

No. MPCB/CL-TRT/AIR/2015-16/016

Issue No. : 01

Issue Date :28.04.16

Report No. : AQ/2018/033

1.	Name of the Project	:	Ambient Air Quality monitoring at MCCL (Mines), Sohra.		
2.	Sample matrix	:	Ambient Air		
3.	Samples collected by	:	MN Warbah/S. Nongkynrih		
4.	Date of sample collection	:	13.02.18		
5.	Date & time of sample receipt	:	15.02.18		
6.	Date of sample analysis	:	15.02.18		
7.	Date of Issue	:	-		
8.	Sample Registration No.	:	A/ 33/18		
9.	Test method reference	:	IS 5182 Pt. 23, IS 5182 Pt. 2, and IS 5182 Pt. 6.		
10.	Name & Address of Industry/Sampling Location	:	MCCL (Mines), Sohra.		
12.	Time duration of sampling	:	24 hrs (8 hrs interval for rspm , 4 hrs interval for gaseous)		
13.	Category	:	Residential		
14.	Meteorological Parameters				
	General Weather condition	:	Clear		
	Temperature (°C)	:	Min: 4.7	Max: 21.1	
	Relative Humidity (%)	:	Min: 57.1	Max: 76.6	
	Wind Speed (km/hr)	:	Min: 0.9	Max: 2.4	Avg: -
	Wind Direction (most prevailing)	:	NE-SW		
	Rainfall (mm)	:	Sum: Nil		

Parameters	Test Method	Permissible Limits (24 hours average) EPA Notification GSR 826(E), dated New Delhi, the 16 th Nov. 2009.	Sampling Station Code/Name
			A/33/18
			Near Weighbridge
Particulate Matter (PM 10) ($\mu\text{g}/\text{m}^3$) (24 hrs avg.)	IS:5182 (Pt-23)	100	83.5
Sulphur dioxide ($\mu\text{g}/\text{m}^3$) (24 hrs avg.)	IS:5182 (Pt-2)	80	2.0
Nitrogen dioxide ($\mu\text{g}/\text{m}^3$) (24 hrs avg.)	IS:5182 (Pt-6)	80	4.5

Remarks: Parameters tested were found to be within the prescribed limits of Ambient Air Quality Standards as per EPA Notification GSR 826(E), dated New Delhi, the 16th Nov. 2009.

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[Signature]
Scientist 'C'

[Signature]
Senior Scientist