

STAR CEMENT MEGHALAYA LIMITED

Ref: SCML-MLA/EHS/LUM/2023-24/25

Dated: 19/10/2023

To,

The Member Secretary,
Meghalaya State Pollution Control Board,
'ARDEN' Lumpyngngad, Shillong – 793014

Subject : Submission of Environmental Monitoring Report for the month of September, 2023.

Reference : MPCB/ONLINE/RCTO(R-I)/EJHD/2021/2023-2024/30, Dtd: Shillong, the 27th September, 2023.

Dear Sir,

This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality monitoring including meteorological data, Fugitive Emission, Surface water monitoring reports of Brishyrrnot Limestone Deposit-I (MLA 42.051 Ha) of Star Cement Meghalaya Limited for the month of **September, 2023.**

This is for your kind information, record and kindly acknowledge receipt of the same.

Thanking You,

Yours truly,
For **STAR CEMENT MEGHALAYA LIMITED**



Laxmaiah Munjala
Unit Head

Enclosed: a/a

Copy To: The Regional Director, Central Pollution Control Board (CPCB), North Eastern Zonal Office, 'TUMSIR', Lower Motinagar, Shillong, Meghalaya-790314.

Regd. Office & Works: P.O. Lumshnong, East Jaintia Hills District, Meghalaya-793210, E-mail: ehslums@starcement.co.in

Corporate Office: Century House, 2nd Floor, P 15/1, Taratala Road, Kolkata-700088, e-mail: kolkata@starcement.co.in



AN ISO 9001, ISO 14001 & ISO 45001 CERTIFIED COMPANY





CIN : U63090ML2005PLC008011











STAR CEMENT MEGHALAYA LIMITED





Lumshnong, Meghalaya


| Date (DD-MM-YYYY) | Pressure (mmHg) | Relative Humidity (%) | Temp. (C) | Manual Rain (mm) |
|-------------------|-----------------|-----------------------|-----------|------------------|
| 01-09-2023 | 761.0 | 88.7 | 29.8 | 11.0 |
| 02-09-2023 | 763.0 | 86.9 | 27.5 | 36.8 |
| 03-09-2023 | 761.7 | 79.5 | 30.4 | 0.0 |
| 04-09-2023 | 762.0 | 85.2 | 30.0 | 0.0 |
| 05-09-2023 | 761.0 | 85.0 | 29.7 | 0.9 |
| 06-09-2023 | 762.4 | 87.0 | 28.4 | 0.0 |
| 07-09-2023 | 761.8 | 89.0 | 27.1 | 9.6 |
| 08-09-2023 | 762.9 | 79.0 | 22.0 | 92.1 |
| 09-09-2023 | 763.8 | 86.4 | 23.0 | 30.0 |
| 10-09-2023 | 761.4 | 82.5 | 22.0 | 0.0 |
| 11-09-2023 | 761.8 | 75.8 | 24.0 | 16.6 |
| 12-09-2023 | 761.5 | 72.6 | 23.0 | 40.0 |
| 13-09-2023 | 764.0 | 71.7 | 22.0 | 24.6 |
| 14-09-2023 | 761.0 | 73.6 | 25.7 | 4.0 |
| 15-09-2023 | 762.0 | 80.4 | 27.9 | 0.0 |
| 16-09-2023 | 762.0 | 82.5 | 29.6 | 0.0 |
| 17-09-2023 | 761.0 | 84.0 | 30.0 | 0.0 |
| 18-09-2023 | 763.0 | 69.5 | 31.0 | 0.0 |
| 19-09-2023 | 764.0 | 67.5 | 27.8 | 2.0 |
| 20-09-2023 | 762.0 | 67.5 | 22.0 | 55.0 |
| 21-09-2023 | 761.0 | 74.9 | 23.0 | 14.4 |
| 22-09-2023 | 763.0 | 73.4 | 25.0 | 14.2 |
| 23-09-2023 | 762.2 | 78.1 | 26.0 | 4.8 |
| 24-09-2023 | 762.0 | 76.5 | 30.0 | 0.0 |
| 25-09-2023 | 763.5 | 73.4 | 29.5 | 0.0 |
| 26-09-2023 | 762.4 | 69.8 | 28.7 | 0.0 |
| 27-09-2023 | 762.8 | 89.4 | 29.4 | 0.0 |
| 28-09-2023 | 761.4 | 75.6 | 28.7 | 0.0 |
| 29-09-2023 | 761.7 | 71.4 | 26.4 | 0.0 |
| 30-09-2023 | 762.4 | 78.6 | 30.1 | 0.0 |
| | | | Total | 356.0 |


| | | | | |
|--|--|---|--------------------------------------|--|
|  | STAR CEMENT MEGHALAYA LIMITED Brishyrnot Limestone Deposit - I (MLA 42.051) Lumshnong, Meghalaya | | Reference No. | SCML/Env/F - 01 |
| | | | Issue No. | 1 |
| | | | Date of Issue: | 24.08.2013 |
| | AMBIENT AIR QUALITY MONITORING REPORT | | Revision No. | 5 |
| Date of Rev. | | | 01.12.2020 | |
| Reference No.: SCML/ENV/AAQM/MONTHLY/2023-24/06 | | | Month : September | |
| Location of Sampling: Mines Entrance Haul Road | | GPS Coordinate: 25°10'14.88"N 92°24'52.13"E | | |
| Sampling Duration: | 24 Hrs. | 24 Hrs. | 24 Hrs. | 24 Hrs. |
| Date of Sampling | PM ₁₀ (µg/m ³) | PM _{2.5} (µg/m ³) | SO ₂ (µg/m ³) | NO ₂ (µg/m ³) |
| 29.09.2023 | 57.21 | 36.28 | 16.78 | 22.74 |
| NAAQS permissible limits for Rural, Industrial, Residential Area | 100 (µg/m ³) | 60 (µg/m ³) | 80 (µg/m ³) | 80 (µg/m ³) |
| Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009. | | | | |
|  Analysed by | |  Checked By | |  Verified By |


| | | | | |
|--|--|---|-------------------------|--|
|  | STAR CEMENT MEGHALAYA LIMITED Brishyrot Limestone Deposit - I (MLA 42.051) Lumshnong, Meghalaya | | Reference No. | SCML/Env/F - 01 |
| | | | Issue No. | 1 |
| | AMBIENT AIR QUALITY MONITORING REPORT | | Date of Issue: | 24.08.2013 |
| | | | Revision No. | 5 |
| | | | Date of Rev. | 01.12.2020 |
| Reference No.: SCML/ENV/AAQM/MONTHLY/2023-24/06 | | | Month : September | |
| Location of Sampling: ROC Drilling Point | | GPS Coordinate: 25°10'15.92"N 92°24'55.38"E | | |
| Sampling Duration: | 24 Hrs. | 24 Hrs. | 24 Hrs. | 24 Hrs. |
| Date of Sampling | PM ₁₀ (µg/m³) | PM _{2.5} (µg/m³) | SO ₂ (µg/m³) | NO ₂ (µg/m³) |
| 29.09.2023 | 50.72 | 32.89 | 15.38 | 18.77 |
| NAAQS permissible limits for Rural, Industrial, Residential Area | 100 (µg/m³) | 60 (µg/m³) | 80 (µg/m³) | 80 (µg/m³) |
| Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009. | | | | |
|  Analysed by | |  Checked By | |  Verified By |


| | | | | |
|---|---|---|-------------------------|--|
|  | STAR CEMENT MEGHALAYA LIMITED Brishyrnot Limestone Deposit - I (MLA 42.051) Lumshnong, Meghalaya | | Reference No. | SCML/Env/F - 01 |
| | | | Issue No. | 1 |
| | | | Date of Issue: | 24.08.2013 |
| | AMBIENT AIR QUALITY MONITORING REPORT | | Revision No. | 5 |
| Date of Rev. | | | 01.12.2020 | |
| Reference No.: SCML/ENV/AAQM/MONTHLY/2023-24/06 | | | Month : September | |
| Location of Sampling: Excavator Point | | GPS Coordinate: 25°10'16.34"N 92°24'54.97"E 745 m | | |
| Sampling Duration: | 24 Hrs. | 24 Hrs. | 24 Hrs. | 24 Hrs. |
| Date of Sampling | PM ₁₀ (µg/m³) | PM _{2.5} (µg/m³) | SO ₂ (µg/m³) | NO ₂ (µg/m³) |
| 29.09.2023 | 46.14 | 35.77 | 15.85 | 19.97 |
| NAAQS permissible limits for Rural, Industrial, Residential Area | 100 (µg/m³) | 60 (µg/m³) | 80 (µg/m³) | 80 (µg/m³) |
| <p>Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.</p> | | | | |
|  Analysed by | |  Checked By | |  Verified By |





|  | STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya | | Reference No. | SCML/Env/F – 07 (a) |
|---|--|---|---|---------------------|
| | | | Issue No. | 1 |
| | | | Date of Issue: | 01.12.2018 |
| | FUGITIVE EMISSION REPORT | | Revision No. | 2 |
| Date of Rev. | | | 01.12.2020 | |
| Ref: SCML/ENV/FUGITIVE/MONTHLY/2023-24/06 | | | | |
| Brishyrnot Limestone Deposit - I (MLA 42.051) | | | | |
| Month - September | | | | |
| Date | Location | Fugitive Emission Results (in $\mu\text{g}/\text{m}^3$) | As per CPCB/BIS Guideline | |
| | | | Limit (in $\mu\text{g}/\text{m}^3$) | |
| 18.09.2023 | Near Lime Stone loading area | 1115 | 5000 | |
| <div style="display: flex; justify-content: space-between; align-items: flex-end; padding-top: 20px;"> <div style="text-align: center;">  Analyzed By </div> <div style="text-align: center;">  Checked By </div> <div style="text-align: center;">  Verified By </div> </div> | | | | |





|  | STAR CEMENT MEGHALAYA LIMITED (42.051 Ha) Lumshnong, Meghalaya | | Document No. | | SCML/EHS/Env/F-03 | |
|--|---|--|----------------|------|-------------------|--|
| | | | Effective Date | | 01-05-2019 | |
| | | | Revision No. | | 04 | |
| | NOISE LEVEL MONITORING REPORT | | Revision Date | | 01-01-2021 | |
| Ref: SCML(LM)/ENV/NOISE/MONTHLY/2023-24/006 Date:- 22.09.2023 | | | | | | |
| Brishyrrnot Limestone Deposit - I (MLA 42.051) | | | | | | |
| Month - September | | | | | | |
| S. No. | Location | Measured Values dB(A) Day time (6:00am to 10:00pm) | | | Norms In dB(A) | |
| | | Min. | Max. | Avg. | | |
| 1 | Excavator | | | | | |
| | A) Operator Cabin (Door Open) | | | | | |
| | a) At Low engine RPM | 57.3 | 66.1 | 61.7 | 75 | |
| | b) At High engine RPM | 62.1 | 70.9 | 66.5 | | |
| | B) Operator Cabin(Door Close) | | | | | |
| | a) At Low engine RPM | 59.4 | 65.4 | 62.4 | | |
| | b) At High engine RPM | 62.1 | 69.7 | 65.9 | | |
| | C) Periphery of the Engine | | | | | |
| | a) At 1 mtr. Distance(At low RPM) | 59.6 | 70.3 | 65.0 | | |
| | b) At 1 mtr. Distance (At high RPM) | 60.8 | 71.5 | 66.2 | | |
| | c) At 5 mtr. Distance (At low RPM) | 55.2 | 68.4 | 61.8 | | |
| | d) At 5 mtr. Distance (At high RPM) | 57.6 | 69.5 | 63.5 | | |
| | D) Behind the Engine | | | | | |
| | a) At 1 mtr. Distance(At low RPM) | 61.2 | 66.9 | 64.1 | | |
| | b) At 1 mtr. Distance (At high RPM) | 68.3 | 70.9 | 69.6 | | |
| c) At 5 mtr. Distance (At low RPM) | 59.4 | 62.4 | 60.9 | | | |
| d) At 5 mtr. Distance (At high RPM) | 62.1 | 68.4 | 65.3 | | | |
| 2 | Rock Breaker | | | | | |
| | A) Operator Cabin | | | | | |
| | a) At Low engine RPM | 63.4 | 64.1 | 63.8 | 75 | |
| | b) At High engine RPM | 65.7 | 71.0 | 68.4 | | |
| | B) Rock Breaker Point (At 5 mtr. Distance) | | | | | |
| | a) Left Side | 57.5 | 65.6 | 61.6 | | |
| | b) Right Side | 54.2 | 67.3 | 60.8 | | |
| | c) Front Side | 56.9 | 68.9 | 62.9 | | |


 Measured By


 Checked By


 Verified By

|  | STAR CEMENT MEGHALAYA LIMITED (42.051 Ha) Lumshnong, Meghalaya | | Document No. | | SCML/EHS/Env/F-03 |
|---|---|--|----------------|---------------|-------------------|
| | | | Effective Date | | 01-05-2019 |
| | | | Revision No. | | 04 |
| | NOISE LEVEL MONITORING REPORT | | | Revision Date | |
| Ref: SCML(LM)/ENV/NOISE/MONTHLY/2023-24/006 Date:- 22.09.2023 | | | | | |
| Brishyrnot Limestone Deposit - I (MLA 42.051) | | | | | |
| Month - September | | | | | |
| S. No. | Location | Measured Values dB(A) Day time (6:00am to 10:00pm) | | | Norms in dB(A) |
| | | Min. | Max. | Avg. | |
| 3 | Drill Machine | | | | 75 |
| | A) Compressor | | | | |
| | a) At 1 mtr. Distance | 66.4 | 72.9 | 69.7 | |
| | b) At 5 mtr. Distance | 62.3 | 71.5 | 66.9 | |
| | B) Drilling Point (At 5 mtr. Distance) | | | | |
| | a) Left Side | 63.4 | 71.5 | 67.4 | |
| | b) Right Side | 62.4 | 72.4 | 67.4 | |
| | c) Front Side | 61.4 | 71.5 | 66.5 | |
| 4 | Dozer | | | | 75 |
| | A) Operator Cabin | | | | |
| | a) At Low engine RPM | 57.8 | 63.4 | 60.6 | |
| | b) At High engine RPM | 64.0 | 71.7 | 67.9 | |
| | B) Periphery of the Engine | | | | |
| | a) At 1 mtr. Distance(At low RPM) | 59.7 | 67.5 | 63.6 | |
| | b) At 1 mtr. Distance (At high RPM) | 63.7 | 70.9 | 67.3 | |
| | c) At 5 mtr. Distance (At low RPM) | 53.9 | 60.2 | 57.1 | |
| | d) At 5 mtr. Distance (At high RPM) | 60.4 | 68.4 | 64.4 | |
| | c) Behind the Engine | | | | |
| | a) At 1 mtr. Distance(At low RPM) | 56.0 | 62.4 | 59.2 | |
| | b) At 1 mtr. Distance (At high RPM) | 59.7 | 66.5 | 63.1 | |
| | c) At 5 mtr. Distance (At low RPM) | 53.6 | 58.5 | 56.1 | |
| | d) At 5 mtr. Distance (At high RPM) | 57.1 | 60.5 | 58.8 | |
| 5 | Dumper | | | | |
| | A) Empty Dumper | | | | |
| | a) Open Window | 64.9 | 70.9 | 67.9 | |
| | b) Close Window | 58.9 | 64.4 | 61.7 | |
| | B) Loaded Dumper | | | | |
| | a) Open Window | 66.1 | 71.4 | 68.8 | |
| <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div>  Analyzed by </div> <div>  Checked by </div> <div>  Verified By </div> </div> | | | | | |

|  | STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya | | | | | | | | | | Reference No. | SCML/EHS/F-04 | | |
|--|--|------------|-----------------|-------------|---------------|-------------|-------------|------------|-----------------------------------|---------------------------------------|---------------|---------------|-----------------------------------|---|
| | | | | | | | | | | | Issue No. | 1 | | |
| | Date of Issue: | 24.08.2013 | | | | | | | | | | | | |
| | Brishyrnot Limestone Deposit - I (MLA 42.051) | | | | | | | | | | Revision No. | 3 | | |
| | | | | | | | | | | | Date of Rev. | 01.06.2019 | | |
| Reference No.: SCML/ENV/WATER/MONTHLY/2023-24/06 | | | | | | | | | | Surface Water Analysis Results | | | | Date of sample collection: 22.09.2023 Date of Analysis: 22.09.2023 to 25.09.2023 |
| S.No. | Parameter | Unit | Umytngai Nallah | | Umutha Nallah | | Umso Nalah | Seshympa | Umbadoh | Tongseng | Lumshnong | Wahiajer | Standards norms as per IS 2296 | |
| | | | Up Stream | Down Stream | Up Stream | Down Stream | Down Stream | | Seasonal Spring / Seasonal Nallah | | | | | |
| 1 | pH | - | 7.8 | 8.0 | 7.7 | 8.4 | 8.2 | 7.7 | 8.2 | 7.8 | 7.4 | 7.8 | 6.5 - 8.5 | |
| 2 | Colour | Hazen | Colourless | Colourless | Colourless | Colourless | Colourless | Colourless | Colourless | Colourless | Colourless | Colourless | 10 | |
| 3 | Odour | - | Unobjectionable | | | | | | | | | | Unobjectionable | |
| 4 | Chloride | mg/L | 21.3 | 26.6 | 23.0 | 24.8 | 27.3 | 22.7 | 30.1 | 23.0 | 24.8 | 23.0 | 250 | |
| 5 | Total Hardness as CaCO ₃ | mg/L | 4.4 | 64.4 | 72.6 | 78.2 | 80.0 | 45.4 | 18.0 | 20.0 | 25.8 | 42.0 | 300 | |
| 6 | Suspended Solids | mg/L | 6.2 | 17.3 | 13.0 | 44.1 | 50.2 | 12.5 | 8.3 | 8.2 | 10.7 | 10.4 | - | |
| 7 | Total Dissolve Solids | mg/L | 275.1 | 282.5 | 232.6 | 291.9 | 308.1 | 101.8 | 174.0 | 26.9 | 36.8 | 178.8 | 500 | |
| 8 | Biochemical Oxygen Demand (For 3 days at 27 °C) | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.0 | |
| 9 | Oil & Grease | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | - | |
| 10 | Temperature | ° C | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | - | |
| 11 | Conductivity | μS/cm | 437.5 | 452.6 | 376.8 | 470.1 | 491.0 | 162.2 | 284.3 | 44.6 | 58.2 | 289.9 | - | |
| 12 | Flow | L / Min | 54740.0 | 92496.5 | 10253.8 | 26101.8 | 11112.9 | 317815.0 | | | 396.2 | | - | |
| <div>    </div> <div> Analyzed by Checked by Verified by </div> | | | | | | | | | | | | | | |