



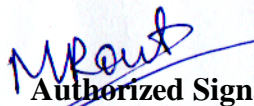
# CENTRE FOR ENVOTECH AND MANAGEMENT CONSULTANCY PVT. LTD.

An ISO 9001-2008 & OHSAS 18001:2007 Certified Company, Empanelled with OCCL, ORSAC and SPCB of Govt. of Odisha Accredited by NABET, QCI for EIA Studies as 'A' Category Consultant Organization. Empanelled with PCCF(Wildlife) & CWLW, Odisha Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India) MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : CEMC/ASL/Mar-A-03/21  
 Name of Company : Ardent Steel Ltd.  
 Sample Description : Ambient Air  
 Date of Monitoring : 11.03.2021  
 Date of Receiving : 12.03.2021  
 Date of Analysis : 12.03.2021  
 Sample Collected by : Mr. B.K.Samantaray.

## AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

| Sl. No.              | LOCATION  | MONITORING REPORT                                |   |   |   |  |   |
|----------------------|---|--|---|---|---|--|---|
|                      |   | PM <sub>10</sub><br>( $\mu\text{g}/\text{m}^3$ ) | PM <sub>2.5</sub><br>( $\mu\text{g}/\text{m}^3$ ) | SO <sub>2</sub><br>( $\mu\text{g}/\text{m}^3$ ) | NO <sub>x</sub><br>( $\mu\text{g}/\text{m}^3$ ) | CO<br>( $\text{mg}/\text{m}^3$ )         | NH <sub>3</sub><br>( $\mu\text{g}/\text{m}^3$ ) |
| 1                    | At the boundary near the water harvesting pond (East Direction) | 70.6   | 36.2  | 12.4  | 16.5  | 0.5                                      | <20   |
| 2                    | At the Boundary near ESP (South Direction)                      | 68.1   | 35.9  | 11.9  | 16.1  | 0.5                                      | <20   |
| 3                    | At the Boundary near Coal Fines Stock yard (North Direction)    | 71.4   | 35.8  | 12.3  | 16.9  | 0.6                                      | <20   |
| 4                    | Near Ball mill, Iron ore fines stock yard                       | 72.9   | 37.3  | 12.2  | 14.4  | 0.5                                      | <20   |
| <b>NAAQ Standard</b> |   | <b>100</b><br>( $\mu\text{g}/\text{m}^3$ )       | <b>60</b><br>( $\mu\text{g}/\text{m}^3$ )         | <b>80</b><br>( $\mu\text{g}/\text{m}^3$ )       | <b>80</b><br>( $\mu\text{g}/\text{m}^3$ )       | <b>4.0</b><br>( $\text{mg}/\text{m}^3$ ) | <b>400</b><br>( $\mu\text{g}/\text{m}^3$ )      |



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Notes:



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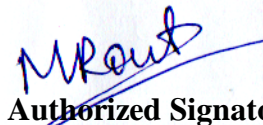
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Sample Description : Ambient Air  
Date of Monitoring : 11.03.2021  
Date of Receiving : 12.03.2021  
Date of Analysis : 12.03.2021  
Sample Collected by : Mr. B.K.Samantaray.

## FUGITIVE EMISSION TEST REPORT

| Sl. No.                      | LOCATION   | RESULT                            |                                  |
|------------------------------|--|-----------------------------------|----------------------------------|
|                              |  | RSPM ( $\mu\text{g}/\text{m}^3$ ) | SPM ( $\mu\text{g}/\text{m}^3$ ) |
| 1                            | Proportioning System (Ash & Coke Fines Bunker)               | 335                               | 1109                             |
| 2                            | Raw Material Transfer point of Mixture (Mixture Building)    | 302                               | 1096                             |
| 3                            | Ball Mill (Cool Grinding)                                    | 318                               | 1182                             |
| 4                            | Ball Mill (Flux & Coke Grinding)                             | 291                               | 1143                             |
| 5                            | Finished Product Transfer points and plant de-dusting system | 287                               | 1075                             |
| 6                            | Travelling Grate & Rotary Kiln                               | 323                               | 1132                             |
| <b>MoEF Standard for SPM</b> |  | <b>--</b>                         | <b>2000*</b>                     |

\* The standard is applicable at 10 m distance from the source

  
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Reference No : CEMC/ASL/Mar -N-03/21  
 Name of Company : Ardent Steel Ltd.  
 Sample Description : Noise Monitoring Report  
 Date of Monitoring : 11.03.2021  
 Sample Collected by : Mr. B.K.Samantaray.

## NOISE LEVEL STUDY REPORT

| Sl. No. | Location  | Noise Level In Day Time dB(A) | Noise Level In Night Time dB(A) |
|---------|---|-------------------------------|---------------------------------|
| 01      | Ball Mill (Cool Grinding)                                 | 73.8                          | 69.2                            |
| 02      | Raw Material Transfer point of Mixture (Mixture Building) | 72.6                          | 68.9                            |

## NATIONAL STANDARD NOISE LEVEL

| Area Code | Category of Area/Zone | Permissible Limit in dB (A) |            |
|-----------|-----------------------|-----------------------------|------------|
|           |                       | Day Time                    | Night Time |
| A         | Industrial Area       | 75                          | 70         |
| B         | Commercial Area       | 65                          | 55         |
| C         | Residential Area      | 55                          | 45         |
| D         | Silence Zone          | 50                          | 40         |

*M. K. Rout*

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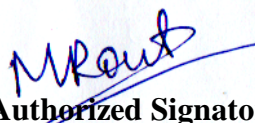
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Reference No : CEMC/ASL/Mar -ST-03/21  
Name of Company : Ardent Steel Ltd.  
Sample Description : Stack Monitoring  
Date of Monitoring : 11.03.2021  
Sample Collected by : Mr. B.K.Samantaray.  
Stack Height : 30m

## STACK EMISSION REPORT

| Sl. No. | Location of Sampling | Flue Gas Temp. in K | Concentration of Particulate Matter (PM) in mg/Nm <sup>3</sup> |
|---------|----------------------|---------------------|--|
|         |                      |                     | Result   |
| 01      | ESP                  | 396                 | 48.2   |

  
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Notes:

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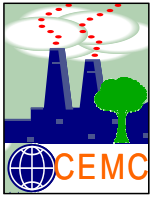


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Reference No : CEMC/ASL/Mar-GW-03/21  
Name of Company : Ardent Steel Ltd.  
Sample Description : Ground Water  
Date of Monitoring : 11.03.2021  
Date of Receiving : 12.03.2021  
Date of Analysis : 12.03.2021  
Sample Collected by : Mr. B.K.Samantaray.  
Sample Location : Canteen(RO Water)

## GROUND WATER TEST REPORT

| Sl. No | Parameter                                  | Unit  | Desired Limit of drinking water (BIS:10500:2012) | Permissible Limit of drinking water (BIS:10500:2012) | Result |
|--------|--|-------|--|--|--------|
| 1      | Colour                                     | Hazen | 5  | 15   | <5     |
| 2      | Odour                                      | -     | Agreeable  | Agreeable  | AL     |
| 3      | Taste                                      | -     | Agreeable  | -  | AL     |
| 4      | Turbidity                                  | NTU   | 1  | 5  | <1     |
| 5      | pH Value @ 25°C                            | -     | 6.5-8.5  | No Relaxation  | 6.45   |
| 6      | Total Dissolved Solid                      | mg/l  | 500  | 2000   | 48     |
| 7      | Alkalinity as CaCO <sub>3</sub>            | mg/l  | 200  | 600  | 30     |
| 8      | Total Hardness as CaCO <sub>3</sub>        | mg/l  | 200  | 600  | 19     |
| 9      | Iron as Fe                                 | mg/l  | 0.3  | No Relaxation  | 0.05   |
| 10     | Nitrate as NO <sub>3</sub> <sup>-</sup> -N | mg/l  | 45   | No Relaxation  | 0.17   |
| 11     | Sulphate as SO <sub>4</sub>                | mg/l  | 200  | 400  | 1.1    |
| 12     | Fluoride as F                              | mg/l  | 1.0  | 1.5  | <0.05  |
| 13     | Calcium as Ca                              | mg/l  | 75   | 200  | 5.61   |
| 14     | Chloride as Cl <sup>-</sup>                | mg/l  | 250  | 1000   | 2.1    |

N.B: AL – Agreeable

  
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|                     |   |                             |
|---------------------|---|-----------------------------|
| Reference No        | : | <b>CEMC/ASL/Mar-W-03/21</b> |
| Name of Company     | : | <b>Ardent Steel Ltd.</b>    |
| Sample Description  | : | <b>Surface Water</b>        |
| Date of Monitoring  | : | <b>11.03.2021</b>           |
| Date of Receiving   | : | <b>12.03.2021</b>           |
| Date of Analysis    | : | <b>12.03.2021</b>           |
| Sample Collected by | : | <b>Mr. B.K.Samantaray.</b>  |
| Sample Location     | : | <b>Reservoir</b>            |

## SURFACE WATER TEST REPORT

| Sl. No | Parameter                                  | Unit  | GSR 422E Standards | Result |
|--------|--|-------|--------------------|--------|
| 1      | Colour                                     | Hazen | --                 | 5      |
| 2      | Odour                                      | -     | --                 | U/O    |
| 3      | pH Value @ 25°C                            | -     | 5.5-9.0            | 7.33   |
| 4      | Total Dissolved Solid                      | mg/l  | 2100               | 369.4  |
| 5      | Iron as Fe                                 | mg/l  | 3.0                | 0.32   |
| 6      | Sulphate as SO <sub>4</sub>                | mg/l  | 1000               | 15.8   |
| 7      | Nitrate as NO <sub>3</sub> <sup>-</sup> -N | mg/l  | 50                 | 13.2   |
| 8      | Boron as B                                 | mg/l  | 2.0                | 0.16   |
| 9      | BOD for 3 days @ 27°C                      | mg/l  | 30                 | 2.0    |
| 10     | COD  | mg/l  | 250                | 21.4   |

**N.B:** U/O- Un-objectionable

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Reference No : CEMC/ASL/Mar-WW-03/21  
Name of Company : Ardent Steel Ltd.  
Sample Description : Waste Water  
Date of Monitoring : 11.03.2021  
Date of Receiving : 12.03.2021  
Date of Analysis : 12.03.2021  
Sample Collected by : Mr. B.K.Samantaray  
Sample Location : STP Outlet

## ANALYSIS RESULT

| Sl. No. | Parameter               | Unit | Effluent Discharge Standard | Testing Method             | Result |
|---------|-------------------------|------|-----------------------------|----------------------------|--------|
| 1.      | pH Value @ 25°C         | --   | 6.5-9.0                     | APHA 4500 H <sup>+</sup> B | 7.42   |
| 2.      | Total Suspended Solids  | mg/l | <20                         | APHA 2540 D                | 11.7   |
| 3.      | B.O.D for 3 days @ 27°C | mg/l | <10                         | APHA 5210 B                | 9.2    |
| 4.      | COD                     | mg/l | <50                         | APHA 5220 C                | 32     |
| 5.      | Oil & Grease            | mg/l | --                          | APHA 5520 B                | 0.9    |

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